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## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference G20.WO.1.04	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/IB 02/05667	International filing date (day/month/year) 30.12.2002	Priority date (day/month/year) 21.02.2002
International Patent Classification (IPC) or both national classification and IPC E06B1/12, E06B1/12		
Applicant G.E. RAPPRESENTANZE DI EMILIANI FAUSTO et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 5 sheets, including this cover sheet.
 

☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 8 sheets.

3. This report contains indications relating to the following items:
 

I	<input checked="" type="checkbox"/>	Basis of the opinion
II	<input type="checkbox"/>	Priority
III	<input type="checkbox"/>	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
IV	<input type="checkbox"/>	Lack of unity of invention
V	<input checked="" type="checkbox"/>	Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
VI	<input type="checkbox"/>	Certain documents cited
VII	<input type="checkbox"/>	Certain defects in the international application
VIII	<input type="checkbox"/>	Certain observations on the international application

Date of submission of the demand  04.09.2003	Date of completion of this report  24.02.2004
Name and mailing address of the international preliminary examining authority: <div style="display: flex; align-items: center;"> <div>           European Patent Office            D-80298 Munich            Tel. +49 89 2399 - 0 Tx: 523656 epmu d            Fax: +49 89 2399 - 4465         </div> </div>	Authorized Officer  Rosborough, J  Telephone No. +49 89 2399-2818 <div style="text-align: right;"> </div>

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. **PCT/IB 02/05667**

**I. Basis of the report**

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

**Description, Pages**

1, 3-9 as originally filed  
2, 2bis received on 13.01.2004 with letter of 02.01.2004

**Claims, Numbers**

1-44 received on 13.01.2004 with letter of 02.01.2004

**Drawings, Sheets**

1/13-13/13 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).  
☐ the language of publication of the international application (under Rule 48.3(b)).  
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority in written form.  
☐ furnished subsequently to this Authority in computer readable form.  
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.  
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:  
☒ the claims, Nos.: 45  
☐ the drawings, sheets:

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5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims	1-44
	No: Claims	
Inventive step (IS)	Yes: Claims	1-44
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-44
	No: Claims	

2. Citations and explanations

**see separate sheet**

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EXAMINATION REPORT - SEPARATE SHEET**

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**Re Item V**

Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

The following documents are referred to in this communication; the numbering will be adhered to in the rest of the procedure:

D1: EP-A-0 913 530

D2: EP-A-0 324 169.

**5.1 Independent Claim 1.**

Document D1, which is considered to represent the most relevant state of the art, discloses:

- a wall device (1) for fittings (7,8 and the sanitary fitting - eg. W.C. - to be installed), said device including:
    - a plurality of horizontal (2a,2c) and vertical (20,30,40,50) uprights mutually coupled by at least first fixing means (9a,9b,9c);
    - connection means(2b) for joining the fittings (8);
- the uprights including at least a first channel section (20,30,40,50 left side) and a second channel section (20,30,40,50 right side), each said section including, starting from a respective bottom side (fig.7b, 69), two respective opposed side parts (figs 5-7b, the sides 21,31,42,51,61 and the sides opposite thereto) nearly orthogonal to the bottom side, and two respective first portions (eg. fig.7b, portion 62b) parallel to the bottom side; said sides, parts and portions of the at least first and second channel sections defining respective cavities and longitudinal openings (14); at least a first portion of each first channel section having also a second portion (22,32,42,52a,52b,62a) orthogonal to the first portions and facing outwards of the respective cavity; the device including two vertical uprights (2), each one consisting of a first channel section (5).

The subject-matter of claim 1 differs from the disclosure of D1 in that:

- A) the device includes two horizontal uprights (2), each one consisting of a second channel section (6);
- B) the first fixing means (10) is/are adjustable, and
- C) the respective cavities (55) and longitudinal openings (14) are for the first adjustable fixing means (10) and for the connection means (20).

The subject-matter of claim 1 is therefore novel (Article 33(2) PCT).

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The problem to be solved by the present invention may therefore be regarded as  
- to simplify the device's manufacture and improve its flexibility, for example to  
accommodate various types and sizes of sanitary fitting.

The solution to this problem proposed in claim 1 of the present application is  
considered as involving an inventive step (Article 33(3) PCT) as none of the prior art  
documents at hand provides an indication for incorporation in the device according to  
D1 of all of the aforesaid features A) to C).

**5.2 Dependent Claims 2-44.**

Claims 2-44 are dependent on claim 1, and as such also meet the requirements of the  
PCT with respect to novelty and inventive step.

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inside which said device must be inserted, in correspondence of appropriate embedding or seats.

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#### DISCLOSURE OF THE INVENTION

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The main object of the present invention is to propose a wall device for fixtures and fittings which is adjustable and customizable according to specific constructive requirements, and fit to be modified and also easily changed after the installation and the assemblage.

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Other object is to propose a device, which can be fixed to an existing wall, requiring a minimum prearrangement of the preexisting walls, both in construction phase and in restructuring phase.

Further object is to propose a device fit to constitute a self-supporting independent wall.

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Other object is that to propose a device having detachable covering panels, in order to allow an easy and quick installation and inspection of the inner pipes and ducts and the hydro thermo sanitary apparatuses supported thereby.

The above-mentioned objects are achieved according to the content of the claims.

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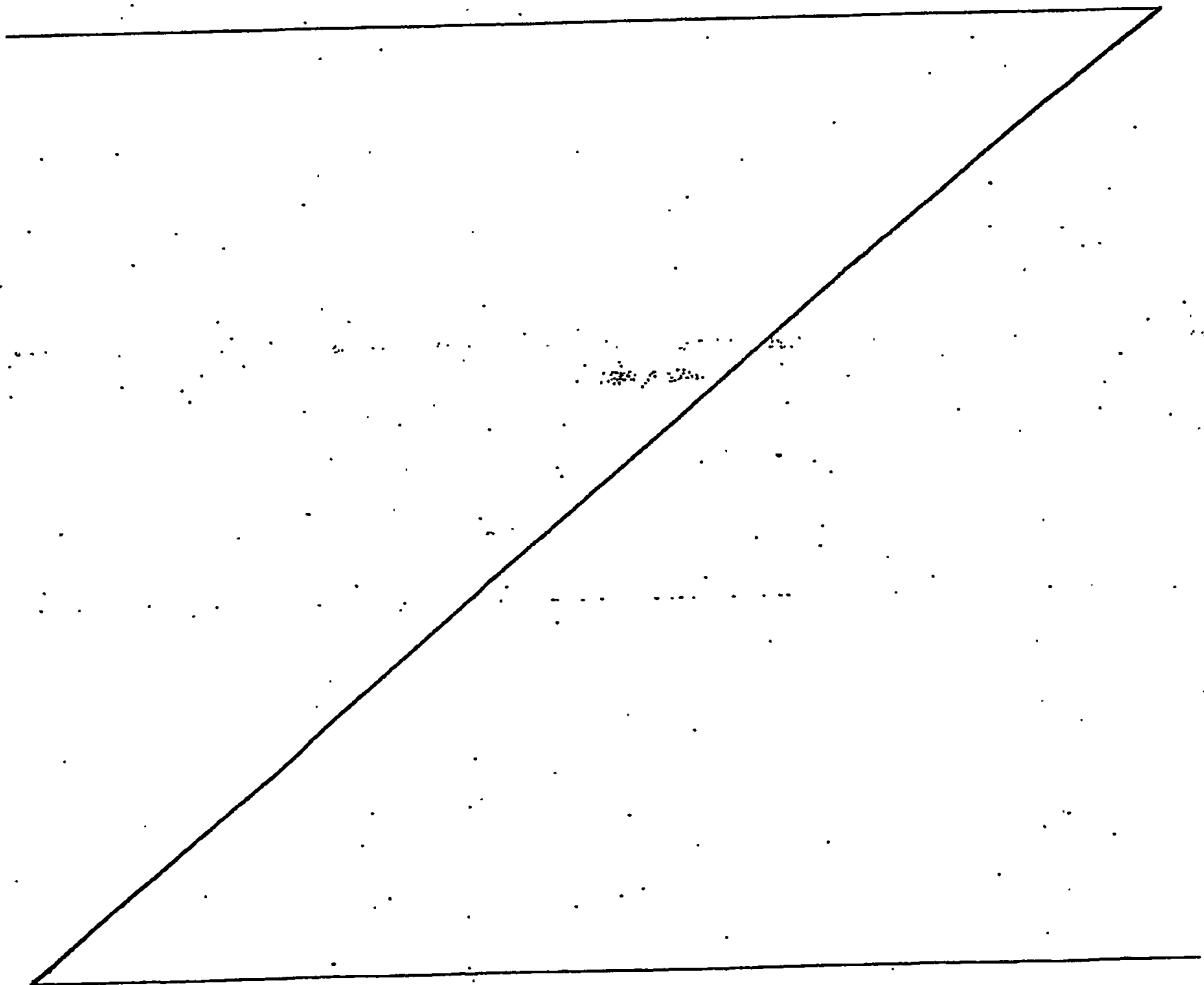
#### BRIEF DESCRIPTION OF THE DRAWINGS

25 The characteristics of the invention are underlined in the following with particular reference to the attached drawings, in which:

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- figure 1 shows a front view of the wall device for fittings, and the like, of the present invention;
- figure 2 shows a partial section view according to line II-II of figure 1;
- figure 3 shows a plant view of a plate mean of figure 2;
- figure 4 shows a section view according to line IV-IV of figure 2;
- figure 5 shows a partial section view according to line V-V of figure 1;
- figure 6 shows a back view of connection means of the figure 1 device;
- figure 7 shows a section partial view according to line VII-VII of figure 1;
- 35 - figure 8 shows a front view of a variant of the figure 1 device;

Document EP 0 913 530 discloses a wall device for fittings including a plurality of horizontal and vertical uprights mutually coupled by at least first fixing means; connection means for joining the fittings. The uprights include a first channel section and a second channel section. Each said section include, starting from a respective bottom side, two respective opposed side parts nearly orthogonal to the bottom side, and two respective first portions parallel to the bottom side. Said sides, parts and portions of the at least first and second channel sections define respective cavities and longitudinal openings. At least a first portion of each first channel section have also a second portion orthogonal to the first portions and facing outwards of respective cavities.



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CLAIMS

- 1) Wall device for fittings ~~characterized in that~~ <sup>ing</sup> including:
- a plurality of horizontal and vertical uprights (2) mutually coupled by at least first
  - ~~adjustable~~ fixing means (10);
  - connection means (20) for joining the fittings;

the uprights (2) including at least a first channel section (5) and a second channel section (6), each one including, starting from a respective bottom side (50), two respective opposed side parts (51) and nearly orthogonal to the bottom side (50), two respective first portions (52) parallel to the bottom side (50); said sides, parts and portions (50, 51, 52) of the at least first (5) and second (6) channel sections defining respective cavities (55) and longitudinal openings (8) ~~for the first fixing means (10) and for the connection means (20);~~ at least a first portion (52) of each first channel section having also a second portion (53) orthogonal to the first portions (52) and facing outwards the respective cavity (55);

- 2) Device according to claim 1 characterized in that the second portions (53) of the first channel section (5) are carried out in a single body with the latter.

- 3) Device according to the claim 1 characterized in that the at least second portion (53) consists of a shaped channel section (66) fixed to an inner protrusion (56) of a correspondent first portion (52).

- said device (1) being,
- 4) ~~Device according to the claim 1~~ characterized in that includes two vertical uprights (2), each one consisting of a first channel section (5), and two horizontal uprights (2), each one consisting of a second channel section (6); first fixing means (10) being adjustable and the longitudinal openings (8) being for the first fixing means (10) and for the connection means (20)

- 4) Device according to the claim 1 characterized in that each channel section (5, 6) has in correspondence of the bottom side (50) at least a window (57).

- 5) Device according to the claim 1 characterized in that the first fixing means (10) are fit for connecting a second channel section (6) to an upright (2) and they consist of a plate mean (15), which can be insert inside the cavity (55) of the second channel section (6) and is removably connected, through clamping means (7), to a first bracket mean (16), which can be fit inside the cavity (55) of the upright (2).



- 6  
7) Device according to claim 1 characterized in that includes second fixing means (11) consisting of a plate mean (15) and an abutment mean (17), removably connected through clamping means (7) and fit for clamping the second portions (53) of a first channel section (5) and the first portions (52) of a second channel section (6).
- 5 7  
8) Device according to claim ~~8~~<sup>5</sup> or claim ~~7~~<sup>6</sup> characterized in that the plate mean (15) has a nearly rectangular shape with at least two flat faces (46), carried out in correspondence of two opposite vertexes of the same plate..
- 10 8  
9) Device according to claim 1 characterized in that includes third fixing means (12), fit for connecting two channel section (5, 6) and consisting of a second U shaped bracket mean (18), which can be insert inside the cavity (55) of the first channel section (5) and is removably connected, through clamping means (7), to inserting means (19), which can be fit inside the cavity (55) of the remaining channel section (5, 6).
- 15 9  
10) Device according to any of the claims from ~~7~~<sup>6</sup> to ~~8~~<sup>8</sup> characterized in that the clamping means (7) include screws or bolts.
- 10 10  
11) Device according to claim ~~7~~<sup>6</sup> characterized in that the second fixing means (11) include spacer means (23) interposed at least between the abutment mean (17) and the second channel section (6).
- 20 11  
12) Device according to claim ~~8~~<sup>5</sup> characterized in that the first bracket mean (16) includes two portions, rotatably coupled and connected respectively to a plate mean (15) and to a channel section (5, 6).
- 25 12  
13) Device according to claim 1 characterized in that includes sixth fixing means (13), consisting of an element which can be associated to the first channel section (5) and is provided with at least a couple of lateral slots (113) for inserting, by rotation, the first portions (52) of a second channel section (6).
- 30 13  
14) Device according to claim ~~13~~<sup>12</sup> characterized in that the end, close to lateral slots (113), of central wall of sixth fixing means (13) has a first recess (114).
- 35 14  
15) Device according to claim ~~13~~<sup>12</sup> characterized in that the fixing means (13) consists of a "C"

shaped element which can be inserted inside the first channel section (5).

- 15 14  
16) Device according to claim 13 characterized in that the inner ends of lateral slots (113) have corresponding tabs (115) protruding outwards to form a stop for the first channel section (5).
- 5 16 13 14  
17) Device according to claims 14 and 15 characterized in that the inner end of the first recess (114) has a corresponding tab (116) protruding outwards to form a stop for the first channel section (5).
- 10 17 13  
18) Device according to claim 14 characterized in that the end of central wall of sixth fixing means (13), opposed to lateral slots (113), has a second recess (117).
- 15 18 12  
19) Device according to claim 15 characterized in that the fixing means (13) consists of a parallelepiped shaped element.
- 20 19 18  
20) Device according to claim 19 characterized in that one free end of fixing means (13) is provided with a housing mean (118) for a related coupling mean (119) which can be inserted inside a channel section (5, 6).
- 20 20 19  
21) Device according to claim 20 characterized in that housing mean (118) and coupling mean (119) are provided with respective holes (120) for a fixing pin (121).
- 25 21  
22) Device according to claim 1 characterized in that includes a plurality of fasten means (30) fit for fixing the device (1) to a wall (60).
- 22 21  
23) Device according to claim 22 characterized in that each fasten mean (30) includes a plate mean (15), inserted in the cavity (55) of the second channel section (6) and removably connected to a L shaped bracket mean (31), by clamping means (7).
- 30 23 22  
24) Device according to claim 23 characterized in that the L shaped bracket mean (31) includes at least a slot (32) for the clamping means (7).
- 35 24  
25) Device according to claim 1 characterized in that includes a plurality of lock means (59) fit for fixing the device (1) to a space of a wall (60).

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26) Device according to claim 1 characterized in that includes connection means (24) connecting two side by side positioned first channel sections (5).

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5 27) Device according to claim 1 characterized in that each connection mean (20) includes at least a support (21) of at least a respective fitting element, removably connected to a plate mean (15), inserted in the cavity (55) of a second channel section (6), through clamping means (7).

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10 28) Device according to claim 27 characterized in that the connection means (20) include at least a anti-rotation bracket (22), connected to the support (21) and partially inserted in the longitudinal opening (8) of the related channel section (6).

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15 29) Device according to claim 1 characterized in that includes fourth fixing means (25) each having a first portion (26), having at least a transversal seat (28), fit for housing a part of a first portion (52) of a second channel section (6), and a protrusion (27), almost orthogonal to said transversal seat (28) and which can be inserted inside the cavity (55) of a respective channel section (5, 6).

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20 30) Device according to claim 29 characterized in that the fourth fixing means (25) include threaded means for blocking the portion (52).

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25 31) Device according to claims 3 characterized in that include fifth fixing means (40), fit for connecting two channel section (5, 6), and including at least an U shaped connection element (41), a first portion of which is removably connected by clamping means (7), to an insert (42), for blocking the inner protrusion (56) of a first channel section (5), and whose remaining portion is inserted inside the cavity (55) of the remaining channel section (5, 6).

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30 32) Device according to claim 31 characterized in that the fixing means (40) further include a shaped spacer element (43) interposed between the clamping means (7) and the connection element (41), and between the latter and the insert (42).

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35 33) Device according to claim 1 characterized in that includes third fixing means (12), fit for connecting two channel section (5, 6) and consisting of a plate mean (15), inserted inside the cavity (55) of a first channel section (5) and connected by clamping means (7) to

inserting means (19), fit inside the cavity (55) of the remaining channel section (5, 6).

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~~34~~ Device according to claim ~~9~~ or ~~33~~ characterized in that the inserting means (19) consist of a channel section portion with rectangular cross section.

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Device according to claim 1 characterized in that includes at least a covering panel (4) fixed to the uprights (2).

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~~36~~ Device according to claim ~~35~~ characterized in that the covering panels (4) are screwed to the vertical uprights (2).

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~~37~~ Device according to claim ~~35~~ characterized in that the covering panels (4) are removably fixed to horizontal uprights (2) by means of a plurality of hanging means (9).

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~~38~~ Device according to claim ~~37~~ characterized in that each hanging mean (9) includes a "S" shaped section element fixed to the covering panel (4) by means of screws in order to form a side for a horizontal uprights (2), consisting of a second channel section (6).

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~~39~~ Device according to claim 1 characterized in that include at least an insulation panel (37) whose peripheral portions are inserted inside the longitudinal openings (8) of the channel sections (5, 6).

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~~40~~ Device according to claim 1 or claim ~~39~~ characterized in that includes spacing means (35) of uprights (2), side by side positioned and fit to form a space (36) delimited by said uprights (2).

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~~41~~ Device according to according to claim ~~37~~ characterized in that includes sealing means interposed between the uprights (2) and the panels (4).

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~~42~~ Device according to claim ~~40~~ characterized in that the connection means (24) include an U shaped element and screw means of side abutment of the first portions (52) of the first channel section (5).

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~~43~~ Device according to claim ~~42~~ characterized in that the connection means (24) include an abutment spacer (29) of the side parts (51) of the first channel sections (5) for reciprocally

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spacing apart said side parts.

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44) Device according to claim ~~7~~ characterized in that each channel section (5, 6) has, in correspondence of the window (57), a removable portion (61) fit for the insertion of elements inside the window (57).

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45) Device according to claim ~~44~~ characterized in that the removable portion (61) is fixed to the channel section (5, 6) by means of screw, nuts and washer...

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